CURRICULUM VITA

A. PERSONAL

1. Name: Jing Sun

2. Degrees:

Ph. D.	University of Southern California, 1989, Department of EE-Systems
M.S.E.	University of Science and Technology of China, 1884, Automatic Control
B. A.	University of Science and Technology of China, 1982, Electrical & Electronics Engineering

3. Positions at U. of M.:

2003-	Associate Professor, Naval Architecture and Marine Engineering, University of Michigan
2004-	Associate Professor (dry appointment), Electrical Engineering and Computer Science, University of Michigan

4. Positions at Other Organizations

2001-2003	Staff Technical Specialist (Project leader), Powertrain Control Research & Advanced Engineering Department, Ford Research Laboratories
1996-2001	Senior Technical Specialist, Powertrain Control Systems Department, Ford Research Laboratories
1993-1996	Technical Specialist, Powertrain Control Systems Department, Ford Research Laboratories
1993 (June-August)	Visiting Scientist, Electrical and Computer Engineering Department, University of California, Santa Barbara
1989-1993	Assistant Professor, Electrical and Computer Engineering Department, Wayne State University
1985-1989	Graduate Research Assistant, EE-Systems, University of Southern California
1986-1987	Summer intern, Project Trilby, Research Center, General Motor Corporation
1982-1984	Graduate Research Fellow, Department of Automatic Control, Univ. of Science & Technology

Honors and Awards

2005	Plenary speaker of the 24th Chinese Control Conference (Title: Integrated Powerplants for Advanced Transportation Systems: Challenges for Control).
2004	IEEE Fellow: "For contributions to systems theory and automotive powertrain control."
	Crosby/Dewitt Research Award, University of Michigan
2003	IEEE Control System Society Control System Technology Award: "For the development of fuel-efficient and environmentally friendly automotive powertrains through innovative application of control theory."
	Ford Research Technology Innovation Award
2002	Ford Research Technology Innovation Award
2001	Ford Publication Award
	Ford Research Technology Innovation Award
2000	Ford Research Technology Innovation Award
1998	Ford Research Technology Innovation Award
1997	Ford Technical Achievement Award
	Ford Research Technology innovation Award
1991	NSF Research Initiation Award
1987	American National Achievements Academy Collegiate Outstanding Student Award

B. TEACHING

1. New Courses Introduced at University of Michigan

Marine Electrical Engineering (NA332), introduced in Winter 2004, 25 students enrolled (also taught in Winter 2005)

Adaptive Control (NA531), introduced in Fall 2003, 25 students enrolled (also taught in Fall 2004)

2. Course Taught at University of Michigan

NA332	Marine Electrical Engineering, Winter 04, Winter 05
NA531	Adaptive Control, Fall 03, Fall 04

3. Doctoral Dissertation Committees Chaired or Co-chaired:

Handa Xi, Naval Architecture and Marine Engineering Department, University of Michigan, degree expected Spring 2007.

Vasilios Tsourapas, Naval Architecture and Marine Engineering Department, (DoD fellowship, co-advisor: Anna Stefanopoulou) University of Michigan, degree expected Spring 2007.

Yanhui Xie, Naval Architecture and Marine Engineering Department, University of Michigan, degree expected Spring 2008

Amey Karnik, Mechanical Engineering Department, (co-advisor: Anna Stefanopoulou), University of Michigan, degree expected December 2006.

Chris Vermillion, Electrical Engineering and Computer Science, University of Michigan, degree expected Spring 2008.

Reza Ghaemi, Electrical Engineering and Computer Science, University of Michigan, degree expected Spring 2008.

Zhen Li, Naval Architecture and Marine Engineering Department, University of Michigan, degree expected Spring 2009.

Gayathri Seenamani, Mechanical Engineering Department, (co-advisor: Huei Peng), degree expected Spring 2008.

Hui Wang, Electrical and Computer Engineering Department, Wayne State University (1991-1996).

4. Short Courses and Workshop Taught

"Automotive Powertrain Control: Fundamentals and Frontiers," tutorial session for the 2005 American Control Conference, June, 2005.

"Fuel Cell Modeling and Control," The Mathworks and University of Michigan, May, 2005.

"New Challenges and Opportunities in Control of Automotive Powertrain Systems," Tsinghua University, Beijing, August 2004.

"Robust Adaptive Control," for the IEEE Conference on Decision and Control, San Diego, CA, December 1997.

"Robust Adaptive Control," for the IEEE Conference on Control Applications Dearborn, MI, September 1996.

"Robust Adaptive Control," for the 12th IFAC World Congress, Sydney, Australia, July 1996.

C. RESEARCH

1. Areas of Research Interests and Expertise

Control system development and optimization for marine and automotive propulsion systems, with in-depth experience and expertise on system

modeling, identification, control algorithm development and integration, control system rapid prototyping and experimental validation.

Modeling, control and optimization of fuel cell systems and fuel cell based combined heat and power (CHP) systems, emphasis on transient management for mobile applications.

Adaptive control theory, with focus on algorithm and tool development aiming at improved transient performance and convergence properties.

Advanced control methodologies, including optimal control and nonlinear control, and their applications to marine and automotive systems.

Methodologies and tools for developing and managing complex dynamic control systems with interactive subsystems and constraints.

2. Grants and Contracts

1. "Feasibility Assessment of Integrated Fuel Cell and Fuel Reforming Systems for Shipboard Power Applications," Office of Naval Research, 11/1/05-10/31/06, $64,943, PI: Jing Sun.
2. "Energy Management and Configuration Optimization for Shipboard Power Systems with Energy Storage Devices," Office of Naval Research, 11/1/05-10/31/06, $88,214, PI: Jing Sun
3. "An Adaptive Control Approach to Powertrain Calibration Process Optimization and Control Strategy Development," Toyota Motor Corporation, 6/13/05-7/30/06, $150,000, PI: Jing Sun.
4. "Dynamic Modeling and Control of SOFC with On-Board JP-8 Reforming for Mobile APUs," US Army (subcontract through Battelle), 9/23/05-9/30/07, $156,000, PI: Jing Sun.
5. "DURIP: Acquisition of Instrumentation for Real-time Hardware-in-the-loop (HIL) Simulation of Advanced Shipboard Power Systems," Office of Naval Research, 5/1/05-8/15/06, $255,345, PI: Jing Sun.
6. "Control Methodologies for Fuel Cell Based CHP Systems Integration and Optimization," National Science Foundation, 7/1/05-6/30/08, $240,000, PI: Jing Sun.
7. "MURI: Optimum Vessel Performance in Evolving Nonlinear Wave Fields," Office of Naval Research, 5/1/05-4/30/10, $5,000,000 (JS share $416,000), PI: Bob Beck, co-PI: Jing Sun, Bob Smith, Michael Parsons, Steve Pollock, and others, JS also serves as the control thrust area leader.
8. "Dynamic Reconfiguration and Adaptation of Integrated Power Systems for All-Electric Ships," Crosby/Dewitt Research Fund Award, University of Michigan/NSF ADVANCE, 4/1/04-4/30/05, $20,000, PI: Jing Sun.

9. "Control Architecture Optimization of Hybrid Fuel Cell Vehicles," University Research Program, Ford Motor Company, 4/1/04-4/30/07, $120,000 (JS share: $90,000), PI, Jing Sun, co-PI: Anna Stefanopoulou.
10. "Feasibility Assessment of Hybrid SOFC/GT for Shipboard Power Applications," Office of Naval Research, 12/1/04-3/30/06, $50,717, PI, Jing Sun.
11. "Alternative Power Simulation Platform—APsim," Automotive Research Center, US Army, 9/1/04-12/30/05, $180,000 (JS share: $50,000), PI: Anna Stefanopoulou, co-PI: Jing Sun.
12. "Adaptive Control System Redesign for Improving Transient Performance," NSF Research Initiation Award, 8/1/91-2/28/94, $65,000 (including a REU supplemental grant for $5,000), PI: Jing Sun.
13. "System Identification of Narrow Bandwidth Active Suspension Actuator," 9/93-8/94, Ford Motor Company, $25,000, PI: Jing Sun.
14. "Advanced Control System Design for ABS," Ford Motor Company, $50,000, 7/93/6/94, PI: Jing Sun.
15. "Integrated Steering-Suspension-Braking Control," Ford Motor Company, 6/91/5/92, $65,520, PI: Jing Sun.

3. Publications

Books

1. Petros A. Ioannou and Jing Sun, Robust Adaptive Control, Prentice Hall, 822 pages, 1996.

Journal Publications

1. Vasilis Tsouparas, Anna Stefanopoulou, and Jing Sun, "Dynamics, Optimization and Control of a Fuel Cell Based Combined Heat and Power (CHP) System," submitted to *IEEE Transactions on Control System Technology*, August, 2005 (accepted October 2005).
2. Ilya Kolmanovsky, Irina Sivergina, and Jing Sun, "Simultaaneous input and parameter estimation with input observers and set membership parameter bounding: Theory and an automotive application," submitted to *Int. Journal of Adaptive Control and Signal Processing* (accepted Dec. 2005).
3. Ilya Kolmanovsky, Jing Sun, and N. Sivashankar, "Optimal control-based powertrain feasibility assessment: A software implementation perspective," submitted to the special issue of Powertrain Control for *Asian Journal of Control*, May, 2005 (accepted Dec. 2005).
4. Handa Xi and Jing Sun: "High Speed Planing Hull Vessels: Control-Oriented Modeling and Feedback Stabilization," submitted to *IEEE*

Transactions on Ocean Engineering, March, 2005 (accepted October 2005).

5. Jeffrey Cook, Jing Sun, Julia H. Buckland, Ilya Kolmanovsky, Huei Peng, and Jessy Grizzle, "Automotive Powertrain Control, A Survey," invited by the special issue of Powertrain Control for *Asian Journal of Control*, submitted February, 2005.
6. Ilya Kolmanovsky and Jing Sun, "Parameter Governor for Discrete Time Nonlinear Systems with Pointwise-in-Time State and Input Constraints," submitted to *Automatica*, January 2005 (accepted in July, 2005).
7. Jing Sun and Ilya Kolmanovsky, "Robust Reference Governor for Fuel Cell Starvation Protection," *IEEE Transactions on Control Systems Technology*, Vol. 13, No.6, pp911-920, November 2005.
8. Yong Wha Kim, Jing Sun, I. Kolmanovsky, and Jeff Koncsol, "A Phenomenological Control Oriented Lean NOx Trap Model," *Journal of Fuels and Lubricants*, September, 2004.
9. Vasilis Trouparas, Jing Sun, and Anna Stefanopoulou, "Modeling and Dynamics of An Integrated Fuel Cell Stack and Fuel Process System with Catalytic Burner for Marine Applications," *IASME Transactions* Vol. 2, No. 1, pp. 287-293, 2004.
10. Jing Sun, Yong Wha Kim, and Leyi Wang, "Aftertreatment Control and Adaptation for Automotive Lean Burn Engines with HEGO Sensors," *International Journal of Adaptive Control and Signal Processing*, Vol. 18, No. 2, pp. 145-166, March 2004.
11. Kolmanovsky, M. Druzhinina, and J. Sun, "Speed-Gradient Approach to Torque and Air-to-Fuel Ratio Control in DISC Engines," *IEEE Transactions on Control Systems Technology*, Vol. 10, No. 5, pp. 671-678, September 2002.
12. Jessy Grizzle, Julia Buckland, and Jing Sun, "Idle Speed Control for a Direct Injection Spark Ignition Stratified Charge Engine," *International Journal of Robust and Nonlinear Control*, Vol. 11, No. 11, pp. 1043-1072, September 2001.
13. Bader Badreddine, Alex Zaremba, Jing Sun and Feng Lin, "Active Damping of Engine Idle Speed Oscillation by Applying Adaptive PID Control," *SAE Transactions* 2001-01-0261, March 2001.
14. Julia Buckland, Jeff Cook, Ilya Kolmanovsky and Jing Sun, "Technology Assessment of Boosted Direct Injection Stratified Charge Gasoline Engines," *SAE Transactions 2000-01-0249*, February 2000.
15. N. Sivashankar and Jing Sun, "Development of Model-Based Computer-Aided Engine Control Systems," *International Journal of Vehicle Design*, Special Issue on Computer-Aided Engineering in Today's Vehicle Design, Vol. 21, No 4/5, pp. 325-343, 1999.

16. Ken Butts, N. Sivashankar, and Jing Sun, "Application of l_1 Optimal Control to Engine Idle Speed Control Problem," *IEEE Transactions on Control Systems Technology*, Vol. 7, No. 2, pp. 258-270, March 1999.
17. Davor Hrovat and Jing Sun, "Models and Control Methodologies for IC Engine Idle Speed Control Design," *IEE Control Engineer Practice*, Issue 5, pp. 1093-1100, August, 1997.
18. Jing Sun, "A Hybrid Adaptive Control Scheme using Sampled Data and Intersampling Compensation," *Automatica*, Vol. 33 No. 2, pp. 203-207, 1997.
19. M. Krstic, J. Sun and P. V. Kokotovic, "Robust Control of Nonlinear Systems with Input Unmodeled Dynamics," *IEEE Transactions on Automatic Control*, Vol. 41, No. 6, pp. 913-920, June 1996.
20. J. Sun, A.W. Olbrot, and M.P. Polis, "Robust Stability and Robust Performance Using Model Reference Control and Modeling Error Compensation," *IEEE Transactions on Automatic Control*, Vol. 39, No. 3, pp. 630-635, March, 1994
21. J. Sun, "A Modified Model Reference Adaptive Control for Improved Transient Performance," *IEEE Transactions on Automatic Control*, Vol. 38, No. 8, pp. 1255-1259, August, 1993.
22. J. Sun and P.A. Ioannou, "Robust Adaptive LQ Control," *IEEE Transactions on Automatic Control*, Vol. 37, No. 1, pp. 100-106, Jan. 1992.
23. Feng Lin, Robert Brandt and J. Sun, "Robust Control of Nonlinear Systems: Compensating for Uncertainty," *Int. J. Control*, Vol. 56, No. 6, 1992.
24. P.A. Ioannou and J. Sun, "Theory and Design of Robust Direct and Indirect Adaptive Control Schemes," *Int. J. Control*, Vol. 47, No. 3, pp. 775-813, 1988.
25. J. Sun, "A New FFT Method for a Real Time Series," (in Chinese), Journal of USTC, PRC, No.4, 1982.
26. J. Sun, "A Tight Bound of Eigenvalues of a Perturbed Matrix," (in Chinese), Journal of USTC, PRC, No.3, 1984.

Refereed Conference Proceedings

1. Vasilis Tsouparas, Jing Sun, Anna Stefanopoulou, "Performance of a Thermally Integrated Fuel Cell System in the Presence of Uncertainties," submitted to *2006 ASME Fuel Cell Conference*, Irvine, California, June, 2006.
2. Chris Vermillion, Jing Sun, Ken Butts, and Andy Hall, "Modeling and Analysis of a Thermal Management System for Engine Calibration," submitted to *2006 IEEE Conference on Control Applications*, Munich, Germany, September, 2006.

3. Ilya Kolmanovsky and Jing Sun, "A Multi-mode Switching-based Command Tracking in Network Controlled Systems with Pointwise-in-time Constraints and Disturbance Inputs," accepted by the 6th World Congress on Intelligent Control and Automation, Dalian, China, June, 2006.
4. Amey Karnik, Jing Sun, and Julia H. Buckland, "Control Analysis of Ejector Based Fuel Cell Anode Recirculation System," accepted by the *2006 American Control Conference*.
5. Handa Xi and Jing Sun, "Dynamic Model of Planar Solid Oxide Fuel Cells for Both Steady State and Transient Performance Analysis," *Proceedings of the ASME International Mechanical Engineering Congress and Exposition (IMECE2005),* Orlando, FL, November, 2005.
6. Amey Y. Karnik and Jing Sun ``Modeling and Control of PEMFC System with an Anode Recirculation," *2005 Third International Conference on Fuel Cell Science, Engineering and Technology*, Ypsilanti, MI, May, 2005.
7. Ilya Kolmanovsky and Jing Sun, "Approaches to Implementation of Reference Governors and Gain Governors for Systems With Pointwise-in-Time Constraints," to appear in the Proceedings of the *44th IEEE Conference on Decision and Control*, Seville, Spain, December 2005.
8. Shuhao Chen and Jing Sun, "Reconfiguration Control with Energy and Time Constraints: A Model Predictive Control Approach," *Proceedings of the 2005 ASNE Symposium on Reconfiguration and Survivability*. Turtle Beach, FL, February, 2005.
9. Jing Sun, Ilya Kolmanovsky, Jeffrey A. Cook, and Julia H. Buckland, "Electronic Engine Control: A Tutorial," *Proceedings of the 2005 American Control Conference*, Portland, OR, June 8-10, 2005.
10. Vasilios Tsourapas, Anna Stefanopoulou, Jing Sun, "Control for Fast Transient Response of a Fuel Cell Based CHP System for Shipboard Applications," *Proceedings of the 2005 American Control Conference*, Portland, OR, June 8-10, 2005.
11. Handa Xi and Jing Sun, "Nonlinear Feedback Control of High Speed Planing Hulls," *Proceedings of the 2005 American Control Conference*, Portland, OR, June 8-10, 2005.
12. Handa Xi and Jing Sun, "Effects of Actuator Dynamics on Stabilization of High-Speed Planing Vessels with Controllable Transom Flaps," *Proceedings of the 8th International Conference on Fast Sea Transportation, St. Petersburg, Russia.*
13. Ilya Kolmanovsky, Jing Sun, and N. Sivashankar, "Optimal control-based powertrain feasibility assessment: A software implementation

perspective," *Proceedings of the 2005 American Control Conference*, Portland, OR, June 8-10, 2005.

14. Handa Xi and Jing Sun, "Modeling and Stabilization of Porpoising for High Speed Planing Vessels," *Proceedings of the 16th IFAC World Congress*, Prague, Czech, 2005.
15. Jing Sun, Shuhao Chen, and Ilya Kolmanovsky, "A Stable Block Model Predictive Control with Variable Implementation Horizon," *Proceedings of the 2005 American Control Conference*, Portland, OR, June 8-10, 2005.
16. Ilya Kolmanovsky, Irena Sivergina, and Jing Sun, "Combined Input and Parameter Estimation With Input Observer and Set-Membership Parameter Bounding," *Proceedings of 43rd IEEE Conference on Decision and Control*, Paradise Island, Bahamas, December 14-17, 2004.
17. Jing Sun and Ilya Kolmanovsky, "Optimization of the Integrated Gasoline Direct Injection Engine and Lean Aftertreatment System: A Multi-dimensional Challenge," *Proceedings of the 23rd Chinese Control Conference*, Wuxi, China, August, 2004.
18. Vasilios Trouparas, Jing Sun, and Anna Stefanopoulou, "Modeling and Dynamics of An Integrated Fuel Cell Stack and Fuel Process System with Catalytic Burner for Marine Applications," *Proceedings of the 1st WSEAS International Conference on Electroscience and Technology for Naval Engineering and All-Electric Ship,* Athens, Greece, July 12, 2004.
19. Jing Sun and Ilya Kolmanovsky, "Robust Reference Governor for Fuel Cell Starvation Protection," *Proceedings of the 2004 American Control Conference*, Boston, MA, June 30-July 2, 2004.
20. Yong Wha Kim, Jing Sun, and Leyi Wang, "Optimization of Lean NOx Trap Control for Fuel Economy and Exhaust Emissions," *Proceedings of the 2004 American Control Conference*, Boston, MA, June 30-July 2, 2004.
21. Ilya Kolmanovsky and Jing Sun, "Parameter Governors for Discrete-Time Nonlinear Systems with Pointwise-in-Time State and Control Constraints," *Proceedings of the 2004 American Control Conference*, Boston, MA, June 30-July 2, 2004.
22. Jeffrey A. Cook, Jing Sun, and Jessy W. Grizzle, "Opportunities in Automotive Powertrain Control Applications," *Proceedings of the IEEE 7th Conference on Control and Its Applications*, Glasgow, UK, Sept. 10-13, 2002.
23. Yong Wha Kim, Jing Sun, Ilya Kolmanovsky, and Jeff Koncsol, "A Phenomenological Control Oriented Lean NOx Trap Model," 2003-01-1164, *SAE Conference and Exhibitions*.

24. Leyi Wang, Yong Wha Kim, and Jing Sun, "Prediction of Oxygen Storage Capacity and Stored NOx By HEGO Sensors for Improved LNT Control Strategies," *Proceedings of International Mechanical Engineering Congress and Exposition (IMECE2002), Orlando, FL*, November, 2002.
25. Ilya Kolmanovsky, Jing Sun, and Maria Druzhinina, "Nonlinear Charge Control in Direct Injection Gasoline Engines," *Proceedings of 15th IFAC World Congress*, Barcelona, Spain, July 22-26, 2002.
26. Carlos Canudas de Wit, Ilya Kolmanovsky, and Jing Sun, "Adaptive pulse control of electronic throttle," *Proceedings of the 2001 American Control Conference*, pp. 2872-2877, Arlington, VA, June 25-27, 2001.
27. Jing Sun, Ilya Kolmanovsky, Jon Dixon, and Mathew Boesch, "Control of DISI engines: Analytical and experimental investigations," *Proceedings of 3rd IFAC Workshop on Advances in Automotive Control*, pp. 249-254, Karsruhe, Germany, March, 2001.
28. Ilya Kolmanovsky, Maria Druzhinina, and Jing Sun, "Nonlinear torque and air-to-fuel ratio controller for direct injection stratified charge gasoline engines," *Proceedings of AVEC 2000, 5-th International Symposium on Advanced Vehicle Control*, Ann Arbor, MI, August 22-24, 2000.
29. Ilya Kolmanovsky, Jing Sun, Maria Druzhinina and Michiel van Nieuwstadt, "Charge Control for Direct Injection Spark Ignition Engines with EGR," *Proc. 2000 American Control Conference*, Chicago, IL, June 28-30, 2000.
30. Leyi Wang, Ilya Kolmanovsky, Jing Sun, "On-line Identification and Adaptation of LNT Models for Improved Emission Control in Lean Burn Automotive Engines," *Proc. 2000 American Control Conference*, Chicago, IL, June 28-30, 2000.
31. Ilya Kolmanovsky, Maria Druzhinina and Jing Sun, "Nonlinear Torque and Air-to-Fuel Ratio Controller for Direct Injection Stratified Charge Gasoline Engines," *Proceedings of AVEC 2000*, Ann Arbor, MI, August 22-24, 2000.
32. Maria Druzhinina, Ilya Kolmanovsky and Jing Sun, "Hybrid Control of Gasoline Direct Injection Engine," *Proc. 38th IEEE Conference on Decision and Control*, Phoenix, AZ, December 1999.
33. Ilya Kolmanovsky, Michiel van Nieuwstadt, Jing Sun and Elmer Gilbert, "Optimal Control of a Gasoline Direct Injection Gasoline Engine," *Proc. 1999 International Mechanical Engineering Congress and Exposition*, Nashville, TN, November 15, 1999.
34. Ilya Kolmanovsky, Jing Sun, and Michiel van Nieuwstadt, "Optimization of Complex Powertrain Systems for Fuel Economy and

Emissions," *Proceedings of the IEEE Conference on Control Applications*, Hawaii, HI, August 22-27, 1999.

35. Jing Sun, Ilya Kolmanovsky, Diana Brehob, Jeffrey Cook, Julia Buckland, and Mo Haghgooie "Modeling and Control of Gasoline Direct Injection Stratified Charge Engines," *Proceedings of the IEEE Conference on Control Applications*, Hawaii, HI, August 22-27, 1999.
36. Ilya Kolmanovsky, Jing Sun and Leyi Wang, "Coordinated Control of Lean Burn Engines with Continuously Variable Transmissions," *Proceedings of the American Control Conference*, San Diego, CA, June, 1999.
37. Ilya Kolmanovsky, Michiel van Nieuwstadt, Jing Sun, "Optimization of Complex Powertrain Systems for Fuel Economy and Emissions," *Proc. 17th Digital Avionics Systems Conf.*, Seattle, WA, October, 1998.
38. Jing Sun and Shiva Sivashankar, "Issues in Cold Start Emission Control for Automotive IC Engines," *Proc. American Control Conference*, Philadelphia, PA, June 1998
39. Frode Maaseidvaag, Paul Moraal, Jing Sun, and Jeffrey Cook, "Powertrain Control System Development for a Global Market," *Proc. International Conf. on Informatics and Control*, St. Petersburg, Russia, 1997.
40. Jing Sun, N. Sivashankar, "An application of optimization methods to the automotive emission control problem," *Proc. 1997 American Control Conference*, Albuquerque, NM, June, 1997.
41. Tehzeeb Gunja, Yang Zhao, Jing Sun, "Analysis of Knocking Characteristics of a Car Engine Using Wavelet Transform," *Proc. of International Conference of Signal Processing Application and Technology (ICSPAT)*, San Diego, CA, September, 1997.
42. Jing Sun, Davor Hrovat, "Modeling and Control Methodologies for IC Engine Idle Speed Control Designs," *Proc. IFAC World Congress*, , San Francisco, CA, 30 June - 05 July, 1996.
43. Miroslav Krstic, Jing Sun, and Petar Kokotovic, "Robust Control of Strict-and Output-Feedback Systems with Input Unmodeled Dynamics," *Proc. of the 1995 IEEE Conference on Decision and Control*, New Orleans, LA, Dec. 14, 1995.
44. Jing Sun, Miroslav Krstic and Petar Kokotovic, "Adaptive Control for a Class of Nonlinear Systems: Stabilization and Regulation," *Proc. IFAC Youth Automation Conference*, Beijing, China, August, 1995.
45. Yong Liu, Jing Sun and Raman Yedavali, "Successive Approximation Algorithm for H_infinity Dynamic Compensation," *Proc. of the 1995 American Control Conference*, Seattle, WA, June 22, 1995.
46. Yong Liu and Jing Sun, "Target Slip Tracking using Gain Scheduling

for Anti-Lock Braking Systems," *Proc. of the 1995 American Control Conference*, Seattle, WA, June 22, 1995.

47. Wei Zhan, Leyi Wang, Yong Liu and Jing Sun, "H_infinity Control for Systems with Sector Bound Nonlinearities," *Proc. IFAC NOLCOS 1995* Conference in Tahoe City, June 1995.

48. Ken Butts, Shiva Sivashankar and Jing Sun, "Coordinated Feedforward and Feedback Design for Engine Idle Speed Control using l_1 Optimization," *Proc. of the 1995 American Control Conference*, Seattle, WA, June 22, 1995.

49. Miroslav Krstic, Jing Sun and Petar V. Kokotovic, "Control of Feedback Linearizable Systems with Unmodeled Input Dynamics," *Proc. IEEE Conf. Decision and Control,* Lake Buena Vista, FL, Dec., 1994.

50. Hui Wang and Jing Sun, "Modeling of Dynamic Systems Using Fuzzy Logic Control," *36th Midwest Symposium on Circuits and Systems*, Detroit, MI, 1993.

51. Jing Sun, "A Multilinear Parametric Model for the Parameter Identification of Partially Known Systems," *Proc. IEEE Conf. Decision and Control,* San Antonio, TX, Dec., 1993.

52. John Yester and Jing Sun, "Design and Adaptive Tuning of Fuzzy Logic Control for an Active Suspension System," *Proc. of the 12th World Congress of IFAC,* Sydney, Australia, 1993.

53. Jing Sun, "A Hybrid Adaptive Control Scheme using Sampled Data and Intersampling Compensation," *Proc. of the 12th World Congress of IFAC,* Sydney, Australia, 1993.

54. Feng Lin, Jing Sun and Leyi Wang, "A Hybrid Control Architecture with Fuzzy Interface for Intelligent Control," *Proc. IEEE Conf. Decision and Control,* Tuscon, AZ, Dec., 1992.

55. Jing Sun and Hui Wang, "Modified Model Reference Adaptive Control with Saturated Input," *Proc. IEEE Conf. Decision and Control,* Tucson, AZ, Dec., 1992.

56. Jing Sun, Andrejez.W. Olbrot, and Michael P. Polis, "Robust Stability and Robust Performance Using Model Reference Control and Modeling Error Compensation," *Proc. American Control Conference,* Boston, MA, June, 1991.

57. Jing Sun, "A Modified Model Reference Adaptive Control Scheme," *Proc. American Control Conference,* Boston, MA, June, 1991.

58. Jing Sun, "Model Reference Control with Modeling Error Compensation: An Adaptive Approach for a Nonadaptive Design," *Proc. IEEE Conf. Decision and Control,* Honolulu, HI, Dec., 1990.

59. Jing Sun and Petros A. Ioannou, "Parameter Convergence of Modified

Adaptive Control Laws with Persistent Excitation," *Proc. American Control Conference,* San Diego, CA, May, 1990.

60. Feng Lin, Robert Brandt and Jing Sun, "Robust Control of Nonlinear Systems: Compensating for Uncertainty," *Proc. American Control Conference*, San Diego, CA, May, 1990.

61. Petros A. Ioannou and Jing Sun, "Robust Adaptive Control: A Unified Approach," *Proc. IEEE Conf. Decision and Control,* Tampa, FL, Dec., 1989.

62. Jing Sun and Petros A. Ioannou, "Robust Adaptive LQ Controller," *Proc. American Control Conference*, Pittsburgh, PA, June, 1989.

63. Jing Sun and Petros A. Ioannou, "Adaptive Tuning of Controllers," *Proc. of the 5th Yale Workshop on Adaptive Control,* New Haven, CT, May 1987.

64. Jing Sun and Petros A. Ioannou, "Robust Adaptive Control of a Large Flexible Structure," *Proc. IASTED Int. Symposium on Applied Control and Identification,* Los Angeles, CA, Dec., 1986.

65. Jing Sun and WeiBo Gong, "Bounded Variational Function and its Application to Control Systems Design," *Proc. National Conference on Automatic Control Theory and Application,* Kuming, PRC, Oct. 1983 (in Chinese).

Book Chapters

1. Ali Beydoun, Leyi Wang, Jing Sun and Shiva Sivashankar, "Hybrid Control of Automotive Powertrain Systems: A Case Study," in *Hybrid Systems: Computation and Control*, Springer-Verlag, April 1998.

2. Leyi Wang, Ali Beydoun, Jeffrey A. Cook, Jing Sun, and Ilya Kolmanovsky, "Optimal Hybrid Control with Applications to Automotive Powertrain Systems," *Proc. of the Block Island Workshop on Control using Logic Based Switching*, Ed. A.S. Morse, Lecture Notes in Control and Information Science, Springer Verlag, 1996.

3. Ken Butts, Ilya Kolmanovsky, N. Sivashankar, and Jing Sun, "Hybrid Systems in Automotive Control Applications," *Proc. of the Block Island Workshop on Control using Logic Based Switching,* Ed. A.S. Morse, Lecture Notes in Control and Information Science, Springer Verlag, 1996.

4. Jing Sun, "A Multilinear Algorithm for Parameter Estimation of Nonlinear Parametric Models," *Adaptive Control, Filtering and Signal Processing*, Ed. K. Astrom, P.R. Kumar and G. Goodwin, published by Springer-Verlag., 1996.

5. Jeffrey A. Cook, Jessy W. Grizzle and Jing Sun, "Engine Control,"

The Controls Handbook, Ed. by William S. Levine, published by CRC Press-Times Mirror Books, 1996.

Book Reviews and Editorials

1. Jing Sun and Jeffrey A. Cook, Editorial for the Special Issue of Automotive Applications, *International Journal of Adaptive Control and Signal Processing*, Vol. 18, No. 2, March 2004.

Government, University, or Industrial Reports

1. Julia Buckland, Ilya Kolmanovsky, Jing Sun and Michiel van Nieuwstadt, "Charge Estimation for Engines with Variable Valve Timing," SRR-2003-0039, Ford Research and Advanced Engineering, March, 2003.
2. Yong Wha Kim, Jing Sun, Ilya Kolmanovsky, and Jeffrey Koncsol, "Lean NOx Trap Model for Control System Design and Analysis," SRR-2002-0059, Ford Research Lab., March, 2002.
3. Leyi Wang, Yongwha Kim and Jing Sun, "Prediction of Oxygen Storage Capacity and Stored NOx by HEGO Sensors for Improved LNT Control Strategy," SRR-2002-0007, Ford Reserch Lab., January 2002.
4. Julia Buckland, Jeff Koncsol, Bill Duchene, Jing Sun and Yongwha Kim, "A Control Oriented Model of the Ford/Yamaha I3 DISI Engine," SRR-2001-0263, Ford Research Lab., December 2001.
5. Jing Sun, Yongwha Kim and Ilya Kolmanovsky, "Torque Control and Mode Switch Strategy for Ford I3 DI Engine," SRR-201-0207, October, 2001.
6. Ilya Kolmanovsky, Jing Sun, Jeffrey Koncsol, Yongwha Kim and William Duchene, "Charge Control for Ford I3 DI Engine: Estimation, Control and Adaptation," SRR-2001-0193, Ford Research Lab., October, 2001.
7. Ilya Kolmanovsky, Jing Sun and Maria Druzhinina, "Nonlinear Torque and Air-to-Fuel Ratio Controller for Direct Injection Stratified Charge Gasoline Engines," SRR-2000-0159, Ford Research Lab., 2000.
8. Ilya Kolmanovsky, Jing Sun and Leyi Wang, "Adaptive Lean Nox Trap Management Strategy for Lean Burn Engines: Algorithm Development," SRR-2000-0115, Ford Research Lab., 2000.
9. Jing Sun, Ilya Kolmanovsky and Matt Boesch, "A Hierarchical Control Architecture for DISC System," SRM-1999-0015, Ford Research Lab., May 1999.
10. Julia Buckland, Jeff Cook, Ilya Kolmanovsky and Jing Sun, "Technology Assessment of boosted Direct Injection Stratified Charge Engines," SRR-1999-0085, Ford Research Lab., June 1999.

11. Ilya Kolmanovsky, Jing Sun and Leyi Wang, "Stability Problems in Coordinated Control of engine Torque and Transmission Gear Ratio: Lean Burn Gasoline Engines with Continuously Variable Transmission," SRR-1999-0027, Ford Research Lab., January 1999.

12. Jing Sun, Ilya Kolmanovsky, and Matt Boesch, "A Hierarchical Control Architecture for DISC System," SRM-1999-0015, Ford Research Lab., March, 1999.

13. Jing Sun, Jeff Doering and Brent Sealy, "Modeling and Data Analysis of Vapor Purge Management Valves," SRR-1999-0025, Ford Research Lab., January 1999.

14. Jing Sun, Ilya Kolmanovsky, Diana Brehob, Mark Seaman, and James Kerns, "A Control Oriented Model for Gasoline Direct Injection Stratified Charge (DISC) Engines," SRR-1998-0110, Ford Research Lab., July, 1998.

15. Jing Sun and N. Sivashankar, "Modeling and optimization for low emission systems," SR-97-101, Ford Research Lab., August, 1997.

16. N. Sivashankar, Yanying Wang, Jing Sun, "A control oriented powertrain model for low emission system studies," SR-97-054, Ford Research Lab., June, 1997.

17. Jing Sun, S. Magner and Jessy Grizzle, "An Idle Speed Control Strategy for 4.6L Powertrain: Modeling and Experimental Results," SR-97-029, Ford Research Lab., 1997.

18. Kenneth Butts, N. Sivashankar, and Jing Sun, "Controller Design to Minimize Engine Idle Speed Excursion," SR-96-014, Ford Research Lab. 1996.

19. Jing Sun and Steve Magner, "A Recipe for Calibrating PID Control for Idle Speed," SR-94-89, Ford Research Lab. 1994.

20. Jing Sun and Steve Magner, "Control System Analysis of EEC Idle Speed Control Strategy," SR-94-88, Ford Research Lab., 1994.

21. Yong Liu and Jing Sun, "System Modeling and Identification of a Narrow Bandwidth Suspension Actuator," submitted to Car Product Development, Ford Motor Company (worked as principal investigator on the project sponsored by Ford), 1993.

22. Jing Sun, "Controller and Estimator Designs for an Antilock Braking System," for Ford Motor Company, 1993.

23. Jing Sun and Hong Jiang, "Analytical Studies and Controller Design of ABS System," prepared for Ford Motor Company (worked as principal investigator on the project sponsored by Ford), 1992.

24. A. Datta, Jing Sun and Petros Ioannou (USC group), M. Walsh, R. Kilgore and R. Borcharts (GM group), "Design and

Implementation of a Controller for the SBW System," prepared for General Motors Research Lab. Feb. 1989.

25. Jing Sun, and Petros A. Ioannou, "Identification and Model Validation of the SBW System," prepared for General Motors Company (worked as a summer intern on the project), September, 1987.
26. Jing Sun and Petros A. Ioannou, "The Robust Adaptive Control of Discrete-time System," EE-Systems, Report 09-01-86, University of Southern California, 1986.
27. Petros Ioannou and Jing Sun, "Robust Adaptive Control for a Steer-by-wire System," Prepared for General Motors Company (worked as graduate research assistant on the project), 1986.
28. Petros A. Ioannou and Jing Sun, "Robust Adaptive Control of a Space Station Model," EE-Systems, USC, 1985.

Invited Presentation (since September, 2003)

1. School of Electrical and Computer Engineering, Purdue University, October 27, 2005.
2. Department of Automation, University of Science and Technology of China, July 25, 2005.
3. Chinese Control Conference, Plenary talk, July 17, 2005.
4. Advanced Engineering Manufacturing Center/Automotive Research Center joined meeting, University of Michigan, November 23, 2004.
5. Mechanical Engineering, University of Windsor, November 11, 2004.
6. Automotive Research Center, University of Michigan, October 22, 2004.
7. Eaton Corporation Innovation Center, October 13, 2004.
8. Sophia University, Department of Mechanical Engineering, July 29, 2004.
9. Toyota Technical Center, Japan, July 30, 2004.
10. Shanghai Jiaotung University, School of Naval Architecture and Civil Engineering, August 2, 2004.
11. Dalian Maritime University, School of Information System and Automation, August 7, 2004.
12. Tsinghau University, Department of Electrical Engineering, August 9, 2004.
13. ONR Electric Ship Research And Development Consortium, Washington D. C., May 12, 2004.

14. NAVSEA Philadelphia, Machinery Science and Technology Group, May 11, 2004.
15. CISD University Day, NAVSEA and Carderock, March 11, 2004.
16. Mechanical Engineering, University of Illinois, Urbana Champion, November 10, 2003.
17. Control seminar, College of Engineering, University of Michigan, Ann Arbor, October 3, 2003.

Patents

1. Jing Sun, YongWha Kim, and Leyi Wang, “Method and Apparatus for Estimating Oxygen Storage Capacity and Stored NOx in a Lean NOx Trap,” US Patent 6826902, December 7, 2004.
2. Jing Sun and Ilya Kolmanovsky, “Combustion Mode Control for a Direct Injection Spark Ignition (DISI) Internal Combustion Engine,” U. S. Patent 6705276, March 16, 2004.
3. Alex Zarembar, Bader Badreddine, Jing Sun and Feng Lin, "Adaptive PID Control Method and System For Internal Combustion Engine Rotation Speed Pulsation Damping," U.S Patent 6591808, July 2003.
4. Ilya Kolmanovsky, Julie Buckland, Jeffrey Cook and Jing Sun, "Engine Knock Prevention System and Method," U. S. Patent 6553949, April 2003.
5. Ilya Kolmanovsky, Julie Buckland and Jing Sun, "Adaptive Torque Model for Internal Combustion Engines," U. S. Patent 6553958. April 2003.
6. Ilya Kolmanovsky and Jing Sun, "Lean Engine Control with Multiple Catalysts," U.S. Patent 6550240, April 2003.
7. Ilya Kolmanovsky, Julia Buckland, Jing Sun, Rodney Tabczyski, Richard Anderson, "Boosted Direct Injection Stratified Charge Engines," U. S. Patent 6513484, February, 2003.
8. Jessy Grizzle and Jing Sun, "Hybrid Operating Mode for DISI Engines," U. S. Patent No. 6,411,885, June 2002.
9. Jessy Grizzle, Ilya Kolmanovsky and Jing Sun, "Fuel Injection Method for an Internal Combustion Engine," U. S. Patent No. 6,393,832, May 2002.
10. N. Sivashankar and Jing Sun, "Engine Mode Control," U. S. Patent No. 6,390,055, May 2002.
11. Jing Sun, Jeffrey Cook and Ilya Kolmanovsky, "Torque Control Apparatus for Lean Burn Engine," U.S. Patent No. 6,389,352, May 2002.

12. Ilya Kolmanovsky, Jessy Grizzle, Jing Sun and John Russell, "Coordinated Control of Valve Timing During Mode Transitions of Direct Injection Stratified Charge Engine," U.S. Patent No. 6,378,484, April 2002.

13. Ilya Kolmanovsky and Jing Sun, "Method and System for Purge Cycle Management of a Lean NOx Trap," U.S. Patent No. 6,370,868, April 2002.

14. Jing Sun and N. Sivashankar, "Method of Estimating Barometric Pressure in an Engine Control System," U. S. Patent No. 6,366,847, April, 2002.

15. Ilya Kolmanovsky, Jeffrey Cook, and Jing Sun, "Mode Transition Control Scheme for Internal Combustion Engines Using Unequal Fueling," U. S. Patent No. 6,360,713, March 2002.

16. Ilya Kolmanovsky and Jing Sun, "Method and System for Controlling a Lean NOx Trap Purge Cycle," U.S. Patent No. 6,347,512, February, 2002.

17. Jessy Grizzle and Jing Sun, "Direct Injection Engine System and Method," U. S. Patent No. 6,336,071, January 2002.

18. Gopichandra Surnilla, Jing Sun, Dave Farmer, Ilya Kolmanovsky, "Engine Air and Fuel Control," U. S. Patent No. 6,324,835, December, 2001.

19. Jessy Grizzle, Jing Sun, "Hybrid Operating Mode for DISI Engines," U. S. Patent No. 6,321,714, November, 2001.

20. Jing Sun, Ilya Kolmanovsky, Jeffrey Cook, "Hybrid Modeling and Control of DISC Engines," U. S. Patent No. 6,321,157, November, 2001.

21. Ilya Kolmanovsky, Julia Buckland, Jing Sun, "Control of Exhaust Temperature in Lean Burn Engines," U. S. Patent No. 6,314,735, November 2001.

22. Maria Druzhinina, Ilya Kolmanvosky, Jing Sun, Michiel van Nieuwsdadt, "System and Method of Controlling Air-charge in Direct Injection Lean Burn Engines," U. S. Patent No. 6,311,679, November, 2001.

23. Ilya Kolmanvosky, Jing Sun, Michiel van Nieuwsdadt, "Calibration Optimization Method," U. S. Patent No. 6,304,812, October, 2001.

24. Jing Sun, Ilya Kolmanovsky, Julia Buckland, Mathew Boesch, "Torque Control Scheme for Low Emission Lean Burn Vehicle," U. S. Patent No. 6,253,546, July, 2001.

25. Jessy Grizzle and Jing Sun, "Direct Injection Engine System and Method," U. S. Patent No. 6,244,242, June 2001.

26. Jing Sun and Jessy Grizzle, "Direct Injection Engine System," U. S. Patent No. 6,209,526, April 2001.

27. Ilya Kolmanovsky, Jing Sun, Leyi Wang, "Torque Control Strategy for Engines with Continuous Variable Transmission," U. S. Patent No. 6,188,944, February 2001.

28. Jeffrey Cook, Ilya Kolmanovsky, and Jing Sun, "Torque Control for Direct Injected Engines Using a Supplemental Torque Apparatus," U. S. Patent No. 6,079,204, June, 2000.

29. N. Sivashankar and Jing Sun, "Idle Speed Control System For Direct Injection Spark Ignition Engines," U.S. Patent No. 5,975,048, November 2, 1999.

30. N. Sivashankar and Jing Sun, "Idle Speed Control for DISI Engines," U.S. Patent No. 5,894,828, April 20, 1999.

31. Jeffrey Cook, N. Sivashankar, Jing Sun, "Vapor Recovery Control System for Direct Injection Gasoline Engines," U.S. Patent No. 5,950,603, September 14, 1999.

32. N. Sivashankar and Jing Sun, "Mode Control System for Direct Injection Spark Ignition Engines," U.S. Patent No. 5,947,079, September 7, 1999.

33. Jessy Grizzle and Jing Sun, "Idle Speed Control," U.S. Patent No. 5,630,394, May 20, 1997.

34. Michael Cullen, Allen Dona, Daniel Meyer, and Jing Sun, “Engine Control System for Maintaining Idle Speed,” U.S. Patent No. 5,492,094, January, 1996.

D. SERVICE

Department/College/University Committees Served

Department:

Ph. D qualifying exam committee (chair for the control subject), 2004-

Department award committee chair, 2005-

College

Scholastic Standing Committee, College of Engineering, 2004-.

Panel for Academic Careers in Engineering and Science, November, 2004.

University of Michigan-Chalmers focus group, 2005.

Honors and Awards Committee, 2005-.

College representative for AERO faculty search committee (Cedric Langbort), October, 2005.

College representative for AERO faculty search committee (Ella Atkins), November, 2005.

University

Faculty selection committee of pre-doctoral fellowship Award, Rackham Graduate School, University of Michigan, 2003.

Others

EECS Ph. D Qualify I examiner

Ph.D committee members for

- Ardalan Vahidi (ME, 2003-2005)
- Chan Chiao (Joe) Lin (ME, 2004)
- HongHai Zhao (ME, 2004-)
- Suhail Akatar (AERO, 2004-2005)
- Ed Tate (EECS, 2005-)
- Aftab Ahmad Khan (ME, 2005-)
- Kyungwon Suh (ME, 2005-)
- Kyoungjoon Chang (ME, 2005-)
- Minjoong Kim (ME, 2005-)
- Jonathan Hagena (ME, 2005-)
- Dongsoo Kang (ME, 2005-)
- Jinming Liu (ME, 2005-)

Service to Government and Professional Organization

1. Journal Editor

Subject Editor (Adaptive Control), *International Journal of Adaptive Control and Signal Processing*, 2004-.

Guest Editor, *International Journal of Adaptive Control and Signal Processing*: Special Issue on Applications of Signal Processing and Adaptive Control to Automotive Systems, 2004

Associate Editor, *IEEE Transactions on Automatic Control*, 1995 – 1996.

Associate Editor, Conference Editorial Board, IEEE Control Systems Society 1994 – 1997.

2. Panelist

National Science Foundation proposal review panels (2002, 1996, 1994)

1st Workshop on "Women in Control," 42nd IEEE Conference on Decision and Control (December 2003)

"Control Awareness Day" at the 41st IEEE Conference on Decision and Control (December 2002)

3. National/International Conferences Planning Committees

a. Vice-chair (Invited Sessions) for *2008 American Control Conferenc.*

b. Vice-chair (Industry and Applications) for *2007 American Control Conference*.

- Steering Committee Member for *ASNE Reconfigurability and Survivability Symposium 2005*.
- Program Committee member for the following conferences:
  - *2006 American Control Conference*
  - *2003 American Control Conference*
  - *2001 American Control Conference*
  - *2000 IEEE Conference on Intelligent Transportation System*
  - *1997 IEEE Conference on Decision and Control*
  - *1997 IEEE Singapore International Symposium on Control Theory and Applications*
  - *1996 IEEE Conference on Control Applications*
  - *1995 International Federation of Automatic Control Youth Automation Conference*
- Special Session Organizer for the following conferences:
  - "Automotive Powertrain Systems: Fundamentals and Frontiers" for *2005 American Control Conference* (June 2005)
  - "Control Awareness Day" for the *2003 American Control Conference* (June 2003, co-organizer as a member of the IEEE Control System Society Education Committee)
  - 1st "Control Awareness Day" at the *41st IEEE Conference on Decision and Control* (December 2002, co-organizer as a member of the IEEE Control System Society Education Committee)
  - "Automotive Control" *for 1999 Conference on Control Applications* (August 1999)
  - "Hybrid Systems" *for The 3rd SIAM Conference on Control and Its Applications* (April 1995)
  - "Robust Adaptive Control" for *1990 American Control Conference* (June 1990).

c. Session Chair for the following conferences:

- *44th IEEE Conference on Decision and Control, 2005*

- *2005 American Control Conference*
- *2004 American Control Conference*
- *2001 American Control Conference*
- *2000 American Control Conference*
- *1999 IEEE Conference on Control Applications*
- *1997 American Control Conference*
- *1996 IEEE Conference on Control Applications*
- *12th IFAC World Congress, 1993*
- *1992 IEEE Conference on Decision and Control*
- *1990 American Control Conference*

4. Society Working/ad hoc committees/service

a. IEEE Control System Society Board of Governor, member (2006-)

b. IFAC (International Federation of Automatic Control) Technical Committee member for Marine Systems (2004-)

c. IEEE Control System Society Education Committee (2001-2004)

d. SAE ABET Relation Committee (2001-2004)

5. Reviewer for Journals and Conferences

- *National Science Foundation (proposals)*
- *Journal of Ship Research*
- *IEEE Transactions on Automatic Control*
- *IEEE Transactions on Control Systems Technology*
- *IEEE Transactions on Neural Networks*
- *Automatica*
- *ASME Journal on Dynamic Systems, Measurement, and Controls*
- *International Journal on Adaptive Control and Signal Processing*
- *International Journal on Robust Control*
- *International Journal of Control*
- *Asian Journal of Control*
- *IEE Control Engineering Practice*
- *American Control Conference*
- *IEEE Conference on Control Applications*
- *IEEE Conference on Decision and Control*
- *IEEE Conference on Intelligent Transportation Systems*

- *IEEE Conference on Intelligent Control*
- *IEEE Conference on CACSD*
- *IFAC World Congress*
- *Control Engineering Practice*

6. **Outside Ph. D Dissertation Committees Served**
    - Bader Badreddine (Wayne State University, 2001)
    - Jeff Doering (Michigan Technology University, 2000)
    - Ali Beydourn (Wayne State University, 1998)

Other awards and citations:

Who is Who in Engineering Education